Amendments to the Claims

In the Claims:

Please amend the claims, as follows:

1 (currently amended).   A first adapter to use in a first <u>server</u> ~~network node~~ in a network, the first adapter comprising:

a <u>host bus adapter (HBA) including</u> circuitry to <u>cause</u> ~~perform~~, in response to a first request <u>received by the HBA, execution of</u> a first data storage-related operation associated with a first set of mass storage devices and to issue, also in response to the first request, a second request from the <u>HBA</u> ~~first adapter~~ to a second adapter in a second <u>server</u> ~~network node~~ in the network to cause ~~a~~ <u>the</u> second adapter to perform, in response to the second request, a second data storage-related operation associated with a second set of mass storage devices.

2 (currently amended).   The first adapter of̶ claim 1, further comprising:

<u>additional</u> circuitry to issue, in response to a first message from the second adapter, a second message to a process in the first <u>server</u> ~~network node~~, the first message indicating that the second data storage-related operation has been completed, the second message indicating that a respective data storage-related operation requested by the first request has been completed.

3 (original).   The first adapter of claim 2, wherein:

the second request and the first message each comprise a respective target node address field, initiating node address field, command field, and message identification field; and

respective message identification fields in the second request and the first message contain identical respective values.

4 (original).   The first adapter of claim 1, wherein the circuitry and the second adapter each comprise a respective I/O processor.

5 (currently amended).   A first adapter to use in a first <u>server</u> ~~network node~~, the first adapter comprising:

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a host bus adapter (HBA) including circuitry to perform, in response to a request, a data storage-related operation associated with a first set of mass storage devices, the request being issued from a second adapter in a second server ~~network node~~ in response to another request received by the second adapter to cause the second adapter to perform, in response to the another request, another data storage-related operation associated with a second set of mass storage devices.

6 (currently amended).   The first adapter of claim 5, further comprising:

additional circuitry to issue a first message to the second adapter to indicate that the data storage-related operation associated with the first set of mass storage devices has been completed, and the second adapter is configured to issue, in response to the first message, a second message to a process in the second server ~~network node~~.

7 (original).   The first adapter of claim 6, wherein:

the request issued from the second adapter and the first message each comprise a respective target node address field, initiating node address field, command field, and message identification field; and

respective message identification fields in the request issued from the second adapter and the first message contain identical respective values.

8 (currently amended).   The first adapter of claim 1, wherein:

the first adapter ~~comprises a first host bus adapter~~ is coupled to the first set of mass storage devices;

the second adapter comprises a second host bus adapter coupled to the second set of mass storage devices; and

the first adapter and the second adapter are coupled together via a network communication link.

9 (currently amended).   The first adapter of claim 5, wherein:

the first adapter ~~comprises a first host bus adapter~~ is coupled to the first set of mass storage devices;

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the second adapter comprises a second host bus adapter coupled to the second set of mass storage devices; and

the first adapter and the second adapter are coupled together via a network communication link.

10 (currently amended).   A first input/output (I/O) processor, the first I/O processor being comprised in a host bus adapter (HBA) in a first server and being configured so as to able to execute a set of operations comprising:

execution, in response to a first request, of a first data storage-related operation associated with a first set of mass storage devices;

issuance, also in response to the first request, of a second request from a the first server network node to a second I/O processor in a second server network node to cause the second I/O processor to perform, in response to the second request, a second data storage-related operation associated with a second set of mass storage devices.

11 (currently amended).   The first I/O processor of claim 10, wherein:

the first network node server comprises the first I/O processor and the first set of mass storage devices;

the second network node server comprises the second set of mass storage devices; and

the first and second servers network node and the second network node are coupled together via a network communication link.

12 (currently amended).   The first I/O processor of claim 10, wherein:

the second data storage-related operation comprises one or more of the following operations:

designation of a first data volume in a second server network node in which data stored in a second data volume in the first server network node is to be replicated;

expansion of a size of the target data volume; and

replication in the first data volume of the data.

13 (currently amended).   The first I/O processor of claim 10, wherein:

the second data storage-related operation comprises one or more of the following operations:

termination of a previously-established association between a first data volume in the second server ~~network node~~ and a second data volume in the first server ~~network node~~, the association designating that data stored in the second data volume is to be replicated in the first data volume; and

re-establishment of the previously-established association after the previously-established association has been terminated.

14 (currently amended).   A first input/output (I/O) processor, the first I/O processor being included in a host bus adapter (HBA) in a first server and being configured to execute a set of operations comprising:

execution, in response to a request, of a first data storage-related operation associated with a first set of mass storage devices; and

issuance, after completion of the execution of the first data storage-related operation, of a first message from a first network node the first server to a second I/O processor in a second server ~~network node~~ to cause the second I/O processor to issue, in response to the first message, a second message to a process in the second server ~~network node~~, the second I/O processor being operatively configurable both to generate the request and to perform a second data storage-related operation associated with a second set of mass storage devices, in response to another request from the process.

15 (original).   The first I/O processor of claim 14, wherein:

the first set of mass storage devices comprises one or more respective mass storage devices;

the second set of mass storage devices comprises one or more respective mass storage devices; and

the first message is comprised in a frame.

16 (currently amended).   A method of using a first adapter including a host bus adapter (HBA) in a first server ~~network node~~ in a network, the method comprising:

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using the first adapter to perform, in response to a first request, a first data storage-related operation associated with a first set of mass storage devices; and

issuing from the first adapter, also in response to the first request, a second request to a second adapter in a second ~~network node~~ <u>server</u> in the network to cause the second I/O adapter to perform, in response to the second request, a second data storage-related operation associated with a second set of mass storage devices.

17 (currently amended).   The method of claim 16, further comprising:

issuing from the first adapter, in response to a first message from the second adapter, a second message to a process in the first <u>server</u> ~~network node~~, the first message indicating that the second data storage-related operation has been completed, the second message indicating that a respective data storage-related operation requested by the first request has been completed.

18 (original).   The method of claim 17, wherein:

the second request and the first message each comprise a respective target node address field, initiating node address field, command field, and message identification field; and

respective message identification fields in the second request and the first message contain identical respective values.

19 (original).   The method of claim 16, wherein the first adapter and the second adapter each comprise a respective I/O processor.

20 (currently amended).   A method of using a first adapter <u>including a host bus adapter (HBA)</u> in a first <u>server</u> ~~network node~~, the method comprising:

using the first adapter to perform, in response to a request, a data storage-related operation associated with a first set of mass storage devices, the request being issued from a second adapter in a second <u>server</u> ~~network node~~ in response to another request received by the second adapter, the second adapter being configured to perform, in response to the another request, another data storage-related operation associated with a second set of mass storage devices.

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21 (currently amended).   The method of claim 20, further comprising:

issuing from the first adapter to the second adapter a first message to indicate that the data storage-related operation associated with the first set of mass storage devices has been completed, the second adapter being configured to issue, in response to the first message, a second message to a process in the second server network node.

22 (original).   The method of claim 21, wherein:

the request issued from the second adapter and the first message each comprise a respective target node address field, initiating node address field, command field, and message identification field; and

respective message identification fields in the request issued from the second adapter and the first message contain identical respective values.

23 (currently amended).   The method of claim 16, wherein:

the first adapter comprises a first host bus adapter is coupled to the first set of mass storage devices;

the second adapter comprises a second host bus adapter coupled to the second set of mass storage devices; and

the first adapter and the second adapter are coupled together via a network communication link.

24 (currently amended).   The method of claim 21, wherein:

the first adapter comprises a first host bus adapter is coupled to the first set of mass storage devices;

the second adapter comprises a second host bus adapter coupled to the second set of mass storage devices; and

the first adapter and the second adapter are coupled together via a network communication link.

25 (currently amended).   A method of using a first input/output (I/O) processor included in a host bus adapter (HBA) in a first server, the method comprising:

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using the first I/O processor to execute, in response to a first request, a first data storage-related operation associated with a first set of mass storage devices; and

using the first I/O processor to generate, also in response to the first request, a second request that may be issued from ~~a first network node~~ the first server to a second I/O processor in a second ~~network node~~ server to cause the second I/O processor to perform, in response to the second request, a second data storage-related operation associated with a second set of mass storage devices.

26 (currently amended).   The method of claim 25, wherein:

the first ~~network node~~ server comprises the ~~first I/O processor and the~~ first set of mass storage devices;

the second ~~network node~~ server comprises the second set of mass storage devices; and

the first and second servers ~~network node and the second network node~~ are coupled together via a network communication link.

27 (currently amended).   The method of claim 26, wherein:

the second data storage-related operation comprises one or more of the following operations:

designation of a first data volume in the second server ~~network node~~ in which data stored in a second data volume in the first server ~~network node~~ is to be replicated;

expansion of a size of the first data volume; and

replication in the first data volume of the data.

28 (currently amended).   The method of claim 26, wherein:

the second data storage-related operation comprises one or more of the following operations:

termination of a previously-established association between a first data volume in the second ~~network node~~ server and a second data volume in the first server ~~network node~~, the association designating that data stored in the second data volume is to be replicated in the first data volume; and

re-establishment of the previously-established association after the previously-established association has been terminated.

29 (currently amended).   A method of using a first input/output (I/O) processor included in a host bus adapter (HBA) in a first server, the method comprising:

using the first I/O processor to execute, in response to a request, a first data storage-related operation associated with a first set of mass storage devices; and

using the first I/O processor to generate, after completion of the execution of the first data storage-related operation, a first message that may be issued from a first network node the first server to a second I/O processor in a second network node server to cause the second I/O processor to issue, in response to the first message, a second message to a process in the second server network node, the second I/O processor being operatively configurable both to generate the request and to perform a second data storage-related operation associated with a second set of mass storage devices, in response to another request from the process.

30 (original).   The method of claim 29, wherein:

the first set of mass storage devices comprises one or more respective mass storage devices;

the second set of mass storage devices comprises one or more respective mass storage devices; and

the first message is comprised in a frame.

31 (currently amended).   A network comprising:

a first network node server associated with a first set of mass storage devices and including a first input/output (I/O) processor;

a second network node server remote from the first server network node, associated with a second set of mass storage devices, and including a second I/O processor;
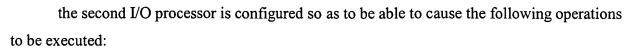
a network communication link coupling the first server network node to the second server network node;

the first I/O processor being comprised in a host bus adapter (HBA) in the first server and being configured so as to be able to cause the following operations:

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execution, in response to a first request, of a first data storage-related operation associated with the first set of mass storage devices;

issuance, also in response to the first request, of a second request from the first ~~network node~~ server to the second ~~network node~~ server via the link to cause the second I/O processor to perform, in response to the second request, a second data storage-related operation associated with the second set of mass storage devices.

32 (currently amended).   The network of claim 31, wherein:

the second I/O processor is configured so as to be able to cause the following operations to be executed:

execution, in response to the second request, of the second data storage-related operation; and

issuance, after completion of the execution of the second data storage-related operation, of a first message from the second server ~~network node~~ to the first server ~~network node~~ via the link to cause the first I/O processor to issue a second message to a process in the first ~~network node~~ server to indicate a completion of the first data storage-related operation and the second data storage-related operation.

33 (currently amended).   Computer program instructions residing in a computer-readable memory, the computer program instructions comprising a set of instructions that when executed by a first processor comprised in a host bus adapter (HBA) in a first server cause:

execution of, in response to a first request, a first data storage-related operation associated with a first set of mass storage devices; and

generation of, also in response to the first request, a second request that may be issued from a first network node the HBA to a second processor in a second server ~~network node~~ to cause the second processor to perform, in response to the second request, a second data storage-related operation associated with a second set of mass storage devices.

34 (currently amended).   The computer program instructions of claim 33, wherein:

the first server ~~network node~~ comprises the ~~first processor and the~~ first set of mass storage devices;

the second <u>server</u> ~~network node~~ comprises the second set of mass storage devices; and

the first <u>and second servers</u> ~~network node and the second network node~~ are coupled together via a network communication link.

35 (currently amended).   The computer program instructions of claim 34, wherein:

the second data storage-related operation comprises one or more of the following operations:

designation of a first data volume in the second ~~network node~~ <u>server</u> in which data stored in a second data volume in the first <u>server</u> ~~network node~~ is to be replicated;

expansion of a size of the first data volume; and

replication in the first data volume of the data.

36 (currently amended).   The computer program instructions of claim 34, wherein:

the second data storage-related operation comprises one or more of the following operations:

termination of a previously-established association between a first data volume in the second ~~network node~~ <u>server</u> and a second data volume in the first <u>server</u> ~~network node~~, the association designating that data stored in the second data volume is to be replicated in the first data volume; and

re-establishment of the previously-established association after the previously-established association has been terminated.

37 (currently amended).   Computer program instructions residing in a computer-readable memory, the computer program instructions comprising a set of instructions that when executed by a first processor <u>included in a host bus adapter (HBA) in a first server</u> cause:

execution, in response to a request, of a first data storage-related operation associated with a first set of mass storage devices; and

generation, after completion of the execution of the first data storage-related operation, of a first message that may be issued from ~~a first network node~~ <u>the first server</u> to a second processor in a second ~~network node~~ <u>server</u> to cause the second processor to issue, in response to the first message, a second message to a process in the second <u>server</u> ~~network node~~, the second processor

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being operatively configurable both to generate the request and to perform a second data storage-related operation associated with a second set of mass storage devices in response to another request from the process.

38 (original).   The computer program instructions of claim 37, wherein:

the first set of mass storage devices comprises one or more respective mass storage devices;

the second set of mass storage devices comprises one or more respective mass storage devices; and

the first message is comprised in a frame.

39 (currently amended).   A first server ~~network node~~, comprising:

a host bus adapter (HBA) comprising a first processor;

~~a~~ the first processor being configured to be able to cause:

execution, in response to a first request, of a first data storage-related operation associated with a first set of storage devices, the first set of storage devices being associated with the first server ~~network node~~; and

issuance, also in response to the first request, of a second request from the first ~~network node~~ server to a second ~~network node~~ server to cause a second processor in the second ~~network node~~ server to perform, in response to the second request, a second data storage-related operation associated with a second set of storage devices, the second set of storage devices being associated with the second server ~~network node~~.

40 (currently amended).   The first ~~network node~~ server of claim 39, wherein the set of storage devices comprises a set of one or more mass storage devices.

41 (currently amended).   The first server ~~network node~~ of claim 39, wherein the second ~~network node~~ server is remote from the first server ~~network node~~.

42 (currently amended).   A first server ~~network node~~, comprising:

a host bus adapter (HBA) including a first processor;

a the first processor being configured to be able to cause the following operations to be executed:

execution, in response to a request, of a first data storage-related operation associated with a first set of storage devices; and

issuance, after completion of the execution of the first data storage-related operation, of a first message from the first network-node server to a second processor in a second network-node server to cause the second processor to issue, in response to the first message, a second message to a process in the second server network-node, the second processor being operatively configurable both to generate the request and to perform a second data storage-related operation associated with a second set of storage devices, in response to another request from the process.

43 (currently amended).   The first network-node server of claim 42, wherein:

the first set of storage devices comprises one or more mass storage devices;

the second set of storage devices comprises one or more mass storage devices; and

the first message is comprised in a frame.

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